Attorney Docket No.884.A56US1

SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

United States Patent Application

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM.

The specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. § 1.56 (attached hereto). I also acknowledge my duty to disclose all information known to be material to patentability which became available between a filing date of a prior application and the national or PCT international filing date in the event this is a Continuation-In-Part application in accordance with 37 C.F.R. § 1.63(e).

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

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Page 2 of 4

Serial No. not assigned Filing Date: not assigned

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

Aldous, Alan Anderson, Robert D. Anglin, J. Michael Arora, Suneel Bacon, Shireen Beekman, Marvin L. Bianchi, Timothy E. Billion, Richard E. Billion, Richard E. Black, David W. Brake, Edward Brennan, Thomas F. Burge, Ben Chadwick, Robin A. Chen, George Choi, Glen Clark, Barbara J. Clise, Timothy B. Cochran, David R. Cool, Kenneth J. Dahl, John M. DeLizio, Andrew Draeger, Jeffrey S. Drake, Eduardo E. Embretson, Janet E. Faatz, Cindy Forrest, Bradley A. Gagne, Christopher Gorrie, Gregory J. Greaves, John N. Green, Sharmini N. Greenberg, Robert A.	Reg. No. 31,905 Reg. No. 33,826 Reg. No. 24,916 Reg. No. 42,267 Reg. No. 40,494 Reg. No. 38,377 Reg. No. 39,610 Reg. No. 32,836 Reg. No. 42,331 Reg. No. 37,784 Reg. No. 35,075 Reg. No. 35,075 Reg. No. 42,372 Reg. No. 36,477 Reg. No. 50,807 Reg. No. 43,546 Reg. No. 43,546 Reg. No. 40,570 Reg. No. 40,570 Reg. No. 40,570 Reg. No. 44,632 Reg. No. 44,632 Reg. No. 44,632 Reg. No. 40,570 Reg. No. 44,650 Reg. No. 40,570 Reg. No. 36,530 Reg. No. 36,530 Reg. No. 36,530 Reg. No. 36,530 Reg. No. 40,362 Reg. No. 41,410 Reg. No. 44,133	Greenwald, Bradley A. Harris, Robert J. Huter, Jeffrey B. Jackson Huebsch, Katharine A. Jurkovich, Patti J. Kalis, Janal M. Kalson, Seth Klima-Silberg, Catherine I. Kluth, Daniel J. Lacy, Rodney L. Lam, Peter Lin, Issac Lundberg, Steven W. Lundmark, David C. Maki, Peter C. Malen, Peter L. Martinez, Anthony Mates, Robert E. McCrackin, Ann M. Mehrle, Joseph P. Mennemeier, Larry Muller, Mark V. Nagy, Paul Nama, Prakash Nelson, A. James Nicholls, Dennis A. Nielsen, Walter W. Padys, Danny J. Parker, Lanny Parker, J. K. Peacock, Gregg A.	Reg. No. 34,341 Reg. No. 37,346 Reg. No. 41,086 Reg. No. 44,670 Reg. No. 44,813 Reg. No. 40,670 Reg. No. 40,670 Reg. No. 32,146 Reg. No. 32,146 Reg. No. 41,136 Reg. No. 41,136 Reg. No. 44,855 Reg. No. 50,672 Reg. No. 50,672 Reg. No. 42,815 Reg. No. 42,815 Reg. No. 42,815 Reg. No. 42,815 Reg. No. 42,832 Reg. No. 44,223 Reg. No. 42,832 Reg. No. 45,535 Reg. No. 51,003 Reg. No. 37,509 Reg. No. 37,509 Reg. No. 37,509 Reg. No. 28,650 Reg. No. 25,539 Reg. No. 25,539 Reg. No. 25,539 Reg. No. 33,024	Perdok, Monique M. Peret, Andrew R. Peterson, David C. Plimier, Michael D. Proksch, Michael A. Prout, William F. Reif, Kevin A. Sayles, Crystal D. Schumm, Sherry W. Schwegman, Michael L. Seddon, Ken Seeley, Mark Shah, Ami P. Simon, David Skabrat, Steve Speier, Gary J. Steffey, Charles E. Steiner, Paul E. Stutman-Horn, Joni D. Tong, Viet V. Tran, David Viksnins, Ann S. Wells, Calvin Willardson, Michael Winkle, Robert G. Woessner, Warren D. Wong, Sharon Yates, Steven D. Young, Charles K.	Reg. No. 42,989 Reg. No. 41,246 Reg. No. 41,304 Reg. No. 43,004 Reg. No. 43,021 Reg. No. 33,995 Reg. No. 36,381 Reg. No. 43,118 Reg. No. 25,816 Reg. No. 25,816 Reg. No. 32,299 Reg. No. 32,299 Reg. No. 32,299 Reg. No. 32,756 Reg. No. 32,756 Reg. No. 32,756 Reg. No. 45,458 Reg. No. 45,458 Reg. No. 45,416 Reg. No. 45,416 Reg. No. 45,416 Reg. No. 43,256 Reg. No. 37,748 Reg. No. 37,748 Reg. No. 37,748 Reg. No. 37,474 Reg. No. 30,440 Reg. No. 37,474 Reg. No. 30,440 Reg. No. 37,760 Reg. No. 37,474 Reg. No. 30,440 Reg. No. 37,760 Reg. No. 37,474 Reg. No. 37,760 Reg. No. 39,435
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I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary. Please direct all correspondence in this case to Schwegman, Lundberg, Woessner & Kluth, P.A. at the address indicated below: P.O. Box 2938, Minneapolis, MN 55402 Telephone No. (612)373-6900

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of joint inventor number 1:

John S. Sadowsky

Citizenship: Post Office Address: United States of America 1428 West Lindner

Residence: Mesa, AZ

Mesa JAZ 85202

4/ 10

Attorney Docket No.: 884.A56U Serial No. not assigned Filing Date: not assigned	S1 .		Page 3 of 4
	or number 2: <u>Minnie H</u> United States of America 405 Becker Lane Los Altos, CA 94022	Residence: Los Altos, CA	
Signature:	Minnie Ho	Date:	
Full Name of joint invento Citizenship: Post Office Address:	r number 3: Sumeet Sandhu United States of America 25 Rio Robles East #408	Residence: San Jose, CA	
Signatura	San Jose, CA 95134	Data	
Signature.	Sumeet Sandhu	Date:	····
Full Name of joint inventor Citizenship: Post Office Address:	number 4: Alexander A. Maltsev Russian Federation Verhne-Pecherskaya Str., 1-7 Nizhny Novgorod 603163 Russian Federation	Residence: Nizhny Novgorod Russian Fed	deration
Signature:	Alexander A. Maltsev	Date:	
•			<u>.</u>
	number 5: Eric A. Jacobsen United States of America 10539 E. Salt Bush Drive Scottsdale, AZ 85259	Residence: Scottsdale, AZ	
Signature:	Eric A. Jacobsen	Date:	
			_
Full Name of joint inventor Citizenship: Post Office Address:	number 6: All S Sadri United States of America 11835 Carmel Mountain Road Suite 1304-306 San Diego, CA 92128	Residence: San Diego, CA	
Signature:		Date:	
A	Ali S Sadri		

- § 1.56 Duty to disclose information material to patentability.
- A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- Under this section, information is material to patentability when it is not cumulative to information already of record or being (b) made of record in the application, and
 - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

- Individuals associated with the filing or prosecution of a patent application within the meaning of this section are: (c)
 - (1) Each inventor named in the application:
 - Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, (d) agent, or inventor.

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Attorney Docket No.: 884.A56US1 Serial No. not assigned Filing Date: not assigned

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Anderson, Robert D.	Reg. No. 33,826	Greenwald, Bradley A.	Reg. No. 34,341	Perdok, Monique M.	Reg. No. 42,989
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Beekman, Marvin L.		Jurkovich, Patti I	Reg. No. 44,813	Proksch, Michael A.	Reg. No. 43,021
Bianchi, Timothy E.	Reg. No. 38,377	Kalis, Janal M.	Reg. No. 37,650	Prout, William F.	Reg. No. 33,995
Billion, Richard E.	Reg. No. 39,610	Kalson, Seth	Reg. No. 40,670	Reif, Kevin A.	Reg. No. 36,381
Black, David W.	Reg. No. 32,836	Klima-Silberg, Catherine I.	Reg. No. 40,052	Sayles, Crystal D.	Reg. No. 44,318
Brake, Edward	Reg. No. 42,331	Kluth, Daniel J.	Reg. No. 32,146	Schumm, Sherry W.	Reg. No. 39,422
Brennan, Thomas F.	Reg. No. 37,784	Lacy, Rodney L.	Reg. No. 41,136	Schwegman, Micheal L.	Reg. No. 25,816
Burge, Ben	Rcg. No. 35,075	Lam, Peter	Reg. No. 44,855	Seddon, Ken	Reg. No. 43,105
Chadwick, Robin A.	Reg. No. 42,372	Lin, Issac	Reg. No. 50,672	Seeley, Mark	Reg. No. 32,299
Chen, George	Reg. No. 36,477	Lundberg, Steven W.	Reg. No. 30,568	Shah, Ami P.	Reg. No. 42,143
Choi, Glen	Reg. No. 50,807	Lundmark, David C.	Reg. No. 42,815	Simon, David	Reg. No. 32,756
Clark, Barbara J.	Reg. No. 43,546	Maki, Peter C.	Reg. No. 42,832	Skabrat, Steve	Reg. No. 36,279
Clise, Timothy B.	Reg. No. 38,107	Malon, Poter L.	Reg. No. 44,894	Speier, Gary J.	Reg. No. 45,458
Cochran, David R.	Reg. No. 40,957	Martinez, Anthony	Reg. No. 44,223	Steffey, Charles E.	Reg. No. 25,179
	Reg. No. 46,632	Mates, Robert E.	Reg. No. 35,271	Steiner, Paul E.	Reg. No. 41,326
Cool, Kenneth J.	Reg. No. 40,570	McCrackin, Ann M.	Reg. No. 42,858	Stutman-Horn, Joni D.	Reg. No. 42,173
Dahl, John M.	Reg. No. 44,639	Mehrle, Joseph P.	Reg. No. 43,535	Tong, Viet V.	Reg. No. 45,416
DeLizio, Andrew	Reg. No. 52,806	Mennemeier, Larry	Reg. No. 51,003	Tran, David	Reg. No. 50,804
Draeger, Jeffrey S.	Reg. No. 41,000	Muller, Mark V.	Reg. No. 37,509	Viksnins, Ann S.	Reg. No. 37,748
Drake, Eduardo E.	Reg. No. 40,594	Nagy, Paul	Reg. No. 37,896	Wells, Calvin	Reg. No. 43,256
Embretson, Janet E.	Reg. No. 39,665	Nama, Prakash	Reg. No. 44,255	Willardson, Michael	Reg. No. 50,856
Paatz, Cindy	Reg. No. 39,973	Nelson, A. James	Reg. No. 28,650	Winkle, Robert G.	Reg. No. 37,474
Forrest, Bradley A.	Reg. No. 30,837	Nicholls, Dennis A.	Reg. No. 42,036	Woessner, Warren D.	Reg. No. 30,440
Gagne, Christopher	Reg. No. 36,142	Nielsen, Walter W.	Reg. No. 25,539	Wong, Sharon	Reg. No. 37,760
Gomie, Gregory J.	Reg. No. 36,530	Padys, Danny J.	Reg. No. 35,635	Yates, Steven D.	Reg. No. 42,242
Greaves, John N.	Reg. No. 40,362	Parker, Lanny	Reg. No. 44,281	Young, Charles K.	Reg. No. 39,435
Green, Sharmini N.	Reg. No. 41,410	Parker, J. K.	Reg. No. 33,024		1/08: 140: 93/433
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Citizenship: Post Office Address:	United States of America 1428 West Lindner Mesa, AZ 85202	Residence: Mesa, AZ	
Signature:		Date:	
J	ohn S. Sadowsky		
_	** ***********************************		,

X Additional inventors are being named on separately numbered sheets, attached hereto.

Attorney Doo Serial No. no Filing Date: r	ket No.: 884.A56US1 t assigned tot assigned			Page 3 of 4
Citizenship	of joint inventor num o: Address:	mber 2: <u>Minnie Ho</u> United States of America 405 Becker Lane Los Altos, CA 94022	Residence: Los Altos, CA	
Signature:	Dunne Min	nie Ho	Date: Dec. 23, 2003	
Full Name Citizenship Post Office		United States of America 25 Rio Robles East	Residence: San Jose, CA	
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Full Name o Citizenship; Post Office		Alexander A. Maltsev Russian Federation Verhne-Pecherskaya Str., 1-7 Nizhny Novgorod 603163 Russian Federation	Residence: Nizhny Novgorod Russian Federation	
Signature:	Alexa	nder A. Maltsev	Date:	_
Full Name of Citizenship: Post Office A		Der 5: Eric A. Jacobsen United States of America 10539 E. Salt Bush Drive Scottsdale, AZ 85259	Residence: Scottsdale, AZ	
Signature:	Eric A	. Jacobsen	Date:	
Full Name of Citizenship: Post Office A	joint inventor numb	per 6: Ali S Sadri United States of America 11835 Carmel Mountain Road Suite 1304-306 San Diego, CA 92128	Residence: San Diego, CA	
Signature:	Ali \$ \$	adri	Date:	_

Attorney Docket No.: 884,A56US1 Serial No. not assigned Filing Date: not assigned

Page 4 of 4

P05/10

§ 1.56 Duty to disclose information material to patentability.

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by \$\frac{8}{5}\$ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to
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- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
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 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

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Clise, Timothy B.	Reg. No. 40,957	Martinez, Anthony	Reg. No. 44,223	Steffey, Charles E.	Reg. No. 25,179
Cochran, David R.	Reg. No. 46,632	Mates, Robert E.	Reg. No. 35,271	Stringr, Paul E.	Reg. No. 41,326
Cool, Kenneth J.	Reg. No. 40,570	McCrackin, Ann M.	Reg. No. 42,858	Stutman-Horn, Joni D.	Reg. No. 42,173
Dahl, John M.	Reg. No. 44,639	Mehrie, Joseph P.	Reg. No. 45,535	Tong, Viet V.	Reg. No. 45,416
DeLizio, Andrew	Reg. No. 52,806	Mennemeier, Larry	Reg. No. 51,003	Tran, David	Reg. No. 50,804
Dracger, Jeffrey S.	Reg. No. 41,000	Muller, Mark V.	Reg. No. 37,509	Viksnins, Ann S.	Reg. No. 37,748
Drake, Eduardo E.	Reg. No. 40,594	Nagy, Paul	Reg. No. 37,896	Wells, Calvin	Reg. No. 43,256
Embreison, Janet E.	Reg. No. 39,665	Nama, Prakash	Reg. No. 44,255	Willardson, Michael	Reg. No. 50,856
Faatz, Cindy	Reg. No. 39,973	Nelson, A. James	Reg. No. 28,650	Winkle, Robert G.	Reg. No. 37,474
Forrest, Bradley A.	Reg. No. 30,837	Nicholls, Dennis A.	Reg. No. 42,036	Woessner, Warren D.	Reg. No. 30,440
Gagne, Christopher	Reg. No. 36,142	Niclsen, Walter W.	Reg. No. 25,539	Wong, Sharon	Reg. No. 37,760
Gorrie, Gregory J.	Reg. No. 36,530	Padys, Danny J.	Reg. No. 35,635	Yates, Steven D.	Reg. No. 42,242
Greaves, John N.	Reg. No. 40,362	Parker, Lanny	Reg. No. 44,281	Young, Charles K.	Reg. No. 39,435
Green, Sharmini N.	Reg. No. 41,410	Parker, J. K.	Reg. No. 33,024		•
Greenbarg, Robert A.	Reg. No. 44,133	Peacock, Gregg A.	Reg. No. 45,001		

I hereby authorize them to act and rely on instructions from and communicate directly with the

person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have
consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary.

Please direct all correspondence in this case to Schwegman, Lundberg, Woessner & Kluth, P.A. at the address indicated below:

P.O. Box 2938, Minneapolis, MN 55402

Telephone No. (612)373-6900

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Citizenship: Post Office Address:	United States of America 1428 West Lindner Mesa, AZ 85202	Residence: Mesa, AZ	
Signature:	John S. Sadowsky	Date:	
		0.00	T AVAIL ABLE CO

John S. Sadowsky

X Additional inventors are being named on separately numbered sheets, attached hereto.

BESI AVAILABLE

Full Name of joint inventor number 1:

Full Name of joint inventor Citizenship: P st Office Address:	number 2: <u>Minnie Ho</u> United States f America 405 Becker Lane Los Altos, CA 94022	Residence: Los Alt s, CA
Signature:		Date:
N	Minnie Ho	
Full Name of joint inventor Citizenship: Post Office Address:	number 3: Sumeet Sandhu United States of America 25 Rio Robles Bast #408	Residence: San Jose, CA
Signature:	San Jose, CA 95134 week Sandhu umeet Sandhu	Date: 12/15/03
Full Name of joint inventor a	Russian Federation	Residence: Nizhny Novgorod Russian Federation
Post Office Address:	Verhne-Pecherskaya Str., 1-7 Nizhny Novgorod 603163 Russian Federation	
Signature:A	lexander A. Maltsev	Date:
Citizenship:	number 5 : <u>Eric A. Jacobsen</u> United States of America	Residence: Scottsdale, AZ
Post Office Address:	10539 B. Salt Bush Drive Scottsdale, AZ 85259	
Signature:		Date:
E	ric A. Jacobsen	
Full Name of joint inventor n Citizenship: Post Office Address:	United States of America 11835 Carmel Mountain Road Suite 1304-306	Residence: San Diego, CA
Signature:	San Diego, CA 92128	Date:
Al	li S Sadri	

Filing Date: not assigned

§ 1.56 Duty to disclose information material to patentability.

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
 - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application:
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

BEST AVAILABLE COPY

Attorney Docket No.884.A56US1

SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

United States Patent Application

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM.

The specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. § 1.56 (attached hereto). I also acknowledge my duty to disclose all information known to be material to patentability which became available between a filing date of a prior application and the national or PCT international filing date in the event this is a Continuation-In-Part application in accordance with 37 C.F.R. § 1.63(e).

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 120 or 365(c) of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. § 1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Attorney Docket No.: 884.AS6US1 Serial No. not assigned Filing Date: not assigned Page 2 of 4

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

Aldous, Alam Anderson, Robert D. Auglin, I. Michael Arora, Suneel Bacon, Shireen Beckman, Marvin L. Bianchi, Timothy E. Billion, Richard E. Black, David W. Brake, Edward Brennan, Thornas F. Burge, Ben Chadwick, Robin A. Chen, George Choi, Glen Clark, Barbara J. Clise, Timothy B. Cochran, David K. Cool, Kenneth J. Dahl, John M. DeLizio, Andrew Draeger, Jeffrey S. Drake, Edwardo E. Embretson, Janet E. Faatz, Cindy Forrest, Bradley A. Gagne, Christopher Oorrie, Gregory J. Greaves, John N. Greenberg, Robert A.	Reg. No. 31,905 Reg. No. 33,826 Reg. No. 24,916 Reg. No. 40,494 Reg. No. 40,494 Reg. No. 39,610 Reg. No. 39,610 Reg. No. 32,836 Reg. No. 42,331 Reg. No. 37,784 Reg. No. 37,784 Reg. No. 35,075 Reg. No. 42,372 Reg. No. 42,372 Reg. No. 50,807 Reg. No. 50,807 Reg. No. 43,546 Reg. No. 38,107 Reg. No. 43,546 Reg. No. 43,546 Reg. No. 40,570 Reg. No. 39,965 Reg. No. 39,965 Reg. No. 39,973 Reg. No. 30,837 Reg. No. 30,837 Reg. No. 30,6530 Reg. No. 40,362 Reg. No. 41,410 Reg. No. 44,133	Greenwald, Bradley A. Harris, Robert J. Huter, Jeffrey B. Jackson Huebsch, Katharine A. Jurkovich, Patri J. Kalis, Janal M. Kalson, Seth Klima-Silberg, Catherine L. Kluth, Daniel J. Lacy, Rodney L. Lam, Peter Lin, Issac Lundberg, Steven W. Lundmark, David C. Maki, Peter C. Malen, Peter L. Martinez, Anthony Mates, Robert E. McCrackin, Ann M. Mchrle, Joseph P. Mennernsier, Larry Muller, Mark V. Nagy, Paul Nama, Prakash Nelson, A. James Nicholls, Dennis A. Nielsen, Walter W. Padys, Darmy J. Parker, Lamy Parker, J. K. Peacock, Gregg A.	Reg. No. 34,341 Reg. No. 37,346 Reg. No. 41,086 Reg. No. 41,086 Reg. No. 47,670 Reg. No. 44,813 Reg. No. 40,670 Reg. No. 40,670 Reg. No. 32,146 Reg. No. 32,146 Reg. No. 41,355 Reg. No. 50,672 Reg. No. 50,672 Reg. No. 42,835 Reg. No. 42,835 Reg. No. 42,832 Reg. No. 42,832 Reg. No. 42,832 Reg. No. 45,535 Reg. No. 51,003 Reg. No. 51,003 Reg. No. 37,896 Reg. No. 37,896 Reg. No. 44,255 Reg. No. 25,535 Reg. No. 25,535 Reg. No. 25,635 Reg. No. 25,630 Reg. No. 25,635 Reg. No. 25,635 Reg. No. 33,635 Reg. No. 33,624 Reg. No. 44,281 Reg. No. 33,024 Reg. No. 45,001	Perdok, Monique M. Peret, Andrew R. Peterson, David C. Plimier, Michael D. Proksch, Michael A. Prout, William F. Reif, Kevin A. Sayles, Crystal D. Schumm, Sherry W. Schwegman, Michael L. Seddon, Ken Seetey, Mark Shah, Ami P. Simon, David Skabrat, Steve Speier, Gary J. Steffey, Charles E. Steiner, Paul E. Stutman-Hom, Joni D. Tong, Viet V. Tran, David Viksnins, Ann S. Wells, Calvin Willardson, Michael Winkle, Robert G. Woessner, Warren D. Wong, Sharon Yates, Steven D. Young, Charles K.	Reg. No. 42,989 RCg. No. 41,246 Reg. No. 41,246 Reg. No. 43,004 Reg. No. 43,001 Reg. No. 33,995 Res. No. 36,381 Reg. No. 36,381 Reg. No. 39,422 Reg. No. 39,422 Reg. No. 32,299 Reg. No. 32,299 Reg. No. 42,143 Reg. No. 32,299 Reg. No. 42,143 Reg. No. 42,143 Reg. No. 42,173 Reg. No. 45,458 Reg. No. 45,468 Reg. No. 50,804 Reg. No. 37,748 Reg. No. 37,748 Reg. No. 37,747 Reg. No. 37,760 Reg. No. 37,760 Reg. No. 37,760 Reg. No. 39,435
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I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignce/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary. Please direct all correspondence in this case to Schwegman, Lundberg, Woessner & Kluth, P.A. at the address indicated below:

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Full Name of joint invento Citizenship: Post Office Address:	or number 1: <u>John S. Sadowsky</u> United States of America 1428 West Lindner Mesa, AZ 85202	Residence: Mesa, AZ
Signature:	John S. Sadowsky	Date:

Attorney Docket No.: 884.A56US1 Serial No. not assigned Filing Date: not assigned			Page 3 of
Full Name of joint inventor a Citizenship: Post Office Address:	number 2: <u>Minnie Ho</u> United States of America 405 Becker Lane Los Altos, CA 94022	Residence: Los Altos, CA	
Signature:	dinnie Ho	Date:	
Full Name of joint inventor a Citizenship: Post Office Address:	number 3: <u>Sumeet Sandhu</u> United States of America 25 Río Robles East #408 San Jose, CA 95134	Residence: San Jose, CA	
Signature:	umeet Sandhu	Date:	
Full Name of joint inventor of Citizenship: Post Office Address: Signature:	number 4: Alexander A. Maltsev Russian Federation Verhne-Pecherskaya Str., 1-7 Nizhny Novgorod 603163 Russian Federation Ma Alexander A. Maltsev	Residence: Nizhny Novgorod Russian Federation Date: 17 December, 200	<u>2</u> 3
Full Name of joint inventor a Citizenship: Post Office Address:	number 5: <u>Eric A. Jacobsen</u> United States of America 10539 E. Salt Bush Drive Scottsdale, AZ 85259	Residence: Scottsdale, AZ	
Signature:E	ric A. Jacobsen	Date:	_
Full Name of joint inventor a Citizenship: Post Office Address:	number 6: Ali S Sadri United States of America 11835 Carmel Mountain Road Suite 1304-306 San Diego, CA 92128	Residence: San Diego, CA	
Signature:	ıli S Sadri	Date:	
•			

Attorney Docket No.: 884.A56US1 Serial No. not assigned Filing Date: not assigned Page 4 of 4

§ 1.56 Duty to disclose information material to patentability.

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
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 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

SCHWEGMAN ■ LUNDBERG ■ WOESSNER ■ KLUTH

United States Patent Application COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM.

The specification of which is attached hereto.

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Page 2 of 4

Attorney Docket No.: 884.A56US1 Serial No. not assigned

Filing Date: not assigned

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

Aldous, Alan	Reg. No. 31,905	Greenwald, Bradley A.	Reg. No. 34,341	Perdok, Monique M.	Reg. No. 42,989
Anderson, Robert D.	Reg. No. 33,826	Harris, Robert J.	Reg. No. 37,346	Peret, Andrew R.	Reg. No. 41,246
Anglin, J. Michael	Reg. No. 24,916	Huter, Jeffrey B.	Reg. No. 41,086	Peterson, David C.	Reg. No. 47,857
Arora, Suncel	Reg. No. 42,267	Jackson Huebsch, Katharine A.	Reg. No. 47,670	Plimier, Michael D.	Reg. No. 43,004
Bacon, Shireen	Reg. No. 40,494	Jurkovich, Patti J.	Reg. No. 44,813	Proksch, Michael A.	Reg. No. 43,021
Beekman, Marvin L.	Reg. No. 38,377	Kalis, Janal M.	Reg. No. 37,650	Prout, William F.	Reg. No. 33,995
Bianchi, Timothy E.	Reg. No. 39,610	Kalson, Seth	Reg. No. 40,670	Reif, Kevin A.	Reg. No. 36,381
Billion, Richard E.	Reg. No. 32,836	Klima-Silberg, Catherine I.	Reg. No. 40,052	Sayles, Crystal D.	Reg. No. 44,318
Black, David W.	Reg. No. 42,331	Kluth, Daniel J.	Reg. No. 32,146	Schumm, Sherry W.	Reg. No. 39,422
Brake, Edward	Reg. No. 37,784	Lacy, Rodney L.	Reg. No. 41,136	Schwegman, Micheal L.	Reg. No. 25,816
Brennan, Thomas F.	Reg. No. 35,075	Lam, Peter	Reg. No. 44,855	Seddon, Ken	Reg. No. 43,105
Burge, Ben	Reg. No. 42,372	Lin, Issac	Reg. No. 50,672	Seeley, Mark	Reg. No. 32,299
Chadwick, Robin A.	Reg. No. 36,477	Lundberg, Steven W.	Reg. No. 30,568	Shah, Ami P.	Reg. No. 42,143
Chen, George	Reg. No. 50,807	Lundmark, David C.	Reg. No. 42,815	Simon, David	Reg. No. 32,756
Choi, Glen	Reg. No. 43,546	Maki, Peter C.	Reg. No. 42,832	Skabrat, Steve	Reg. No. 36,279
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DeLizio, Andrew	Reg. No. 52,806	Mennemeier, Larry	Reg. No. 51,003	Tran, David	Reg. No. 50,804
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Forrest, Bradley A.	Reg. No. 30,837	Nicholls, Dennis A.	Reg. No. 42,036	Woessner, Warren D.	Reg. No. 30,440
Gagne, Christopher	Reg. No. 36,142	Nielsen, Walter W.	Reg. No. 25,539	Wong, Sharon	Reg. No. 37,760
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Green, Sharmini N.	Reg. No. 41,410	Parker, J. K.	Reg. No. 33,024		.106101 371-33
Greenberg, Robert A.	Reg. No. 44,133	Peacock, Gregg A.	Reg. No. 45,001		
•	J,				

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary. Please direct all correspondence in this case to Schwegman, Lundberg, Woessner & Kluth, P.A. at the address indicated below: P.O. Box 2938, Minneapolis, MN 55402 Telephone No. (612)373-6900

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of joint inventor	number 1: John S. Sadowsky		
Citizenship:	United States of America	Residence: Mesa, AZ	
Post Office Address:	1428 West Lindner	•	
	Mesa, AZ 85202		
Signature:		Date:	
.]	John S. Sadowsky		

Serial No. not assigned Filing Date: not assigned			Page 3 o
Full Name of joint inventor nu Citizenship: Post Office Address:	umber 2: <u>Minnie Ho</u> United States of America 405 Becker Lane Los Altos, CA 94022	Residence: Los Altos, CA	
Signature:Mi	nnie Ho	Date:	
	umber 3: Sumeet Sandhu United States of America 25 Rio Robles East #408 San Jose, CA 95134	Residence: San Jose, CA	
Signature:		Date:	
Sur	neet Sandhu		
Full Name of joint inventor nu Citizenship: Post Office Address:	mber 4: Alexander A. Maltsev Russian Federation Verhne-Pecherskaya Str., 1-7 Nizhny Novgorod 603163 Russian Federation	Residence: Nizhny Novgorod Russian Federation	
Signature:Ale:	xander A. Maltsev	Date:	- .
Citizenship: Post Office Address:	nber 5: Eric A. Jacobsen United States of America 10539 E. Salt Bush Drive Scottsdale, AZ 85259 A. Jacobsen	Residence: Scottsdale, AZ Date: December 18 7003	_
Citizenship: Post Office Address:	nber 5: Eric A. Jacobsen United States of America 10539 E. Salt Bush Drive Scottsdale, AZ 85259 A. Jacobsen	Residence: Scottsdale, AZ	

Attorney Docket No.: 884.A56US1 Serial No. not assigned Filing Date: not assigned Page 4 of 4

- § 1.56 Duty to disclose information material to patentability.
- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
 - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application:
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

United States Patent Application COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM.

The specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. § 1.56 (attached hereto). I also acknowledge my duty to disclose all information known to be material to patentability which became available between a filing date of a prior application and the national or PCT international filing date in the event this is a Continuation-In-Part application in accordance with 37 C.F.R. § 1.63(e).

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

No such claim for priority is being made at this time.

I hereby claim the benefit under 35 U.S.C. § 120 or 365(c) of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. § 1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Serial No. not assigned Filing Date: not assigned

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

					•
Aldous, Alan	Reg. No. 31,905	Greenwald, Bradley A.	Reg. No. 34,341	Perdok, Monique M.	Reg. No. 42,989
. Anderson, Robert D.	Reg. No. 33,826	Harris, Robert J.	Reg. No. 37,346	Peret, Andrew R.	Reg. No. 41,246
Anglin, J. Michael	Reg. No. 24,916	Huter, Jeffrey B.	Reg. No. 41,086	Peterson, David C.	Reg. No. 47,857
Arora, Suneel	Reg. No. 42,267	Jackson Huebsch, Katharine A.	Reg. No. 47,670	Plimier, Michael D.	Reg. No. 43,004
Bacon, Shireen	Reg. No. 40,494	Jurkovich, Patti J.	Reg. No. 44,813	Proksch, Michael A.	Reg. No. 43,021
Beekman, Marvin L.	Reg. No. 38,377	Kalis, Janal M.	Reg. No. 37,650	Prout, William F.	Reg. No. 33,995
Bianchi, Timothy E.	Reg. No. 39,610	Kalson, Seth	Reg. No. 40,670	Reif, Kevin A.	Reg. No. 36,381
Billion, Richard E.	Reg. No. 32,836	Klima-Silberg, Catherine I.	Reg. No. 40,052	Sayles, Crystal D.	Reg. No. 44,318
Black, David W.	Reg. No. 42,331	Kluth, Daniel J.	Reg. No. 32,146	Schumm, Sherry W.	Reg. No. 39,422
Brake, Edward	Reg. No. 37,784	Lacy, Rodney L.	Reg. No. 41,136	Schwegman, Micheal L.	Reg. No. 25,816
Brennan, Thomas F.	Reg. No. 35,075	Lam, Peter	Reg. No. 44,855	Seddon, Ken	Reg. No. 43,105
Burge, Ben	Reg. No. 42,372	Lin, Issac	Reg. No. 50,672	Seeley, Mark	Reg. No. 32,299
Chadwick, Robin A.	Reg. No. 36,477	Lundberg, Steven W.	Reg. No. 30,568	Shah, Ami P.	Reg. No. 42,143
Chen, George	Reg. No. 50,807	Lundmark, David C.	Reg. No. 42,815	Simon, David	Reg. No. 32,756
Choi, Glen	Reg. No. 43,546	Maki, Peter C.	Reg. No. 42,832	Skabrat, Steve	Reg. No. 36,279
Clark, Barbara J.	Reg. No. 38,107	Malen, Peter L.	Reg. No. 44,894	Speier, Gary J.	Reg. No. 45,458
Clise, Timothy B.	Reg. No. 40,957	Martinez, Anthony	Reg. No. 44,223	Steffey, Charles E.	Reg. No. 25,179
Cochran, David R.	Reg. No. 46,632	Mates, Robert E.	Reg. No. 35,271	Steiner, Paul E.	Reg. No. 41,326
Cool, Kenneth J.	Reg. No. 40,570	McCrackin, Ann M.	Reg. No. 42,858	Stutman-Horn, Joni D.	Reg. No. 42,173
Dahl, John M.	Reg. No. 44,639	Mehrle, Joseph P.	Reg. No. 45,535	Tong, Viet V.	Reg. No. 45,416
DeLizio, Andrew	Reg. No. 52,806	Mennemeier, Larry	Reg. No. 51,003	Tran, David	Reg. No. 50,804
Draeger, Jeffrey S.	Reg. No. 41,000	Muller, Mark V.	Reg. No. 37,509	Viksnins, Ann S.	Reg. No. 37,748
Drake, Eduardo E.	Reg. No. 40,594	Nagy, Paul	Reg. No. 37,896	Wells, Calvin	Reg. No. 43,256
Embretson, Janet E.	Reg. No. 39,665	Nama, Prakash	Reg. No. 44,255	Willardson, Michael	Reg. No. 50,856
Faatz, Cindy	Reg. No. 39,973	Nelson, A. James	Reg. No. 28,650	Winkle, Robert G.	Reg. No. 37,474
Forrest, Bradley A.	Reg. No. 30,837	Nicholls, Dennis A.	Reg. No. 42,036	Woessner, Warren D.	Reg. No. 30,440
Gagne, Christopher	Reg. No. 36,142	Nielsen, Walter W.	Reg. No. 25,539	Wong, Sharon	Reg. No. 37,760
Gorrie, Gregory J.	Reg. No. 36,530	Padys, Danny J.	Reg. No. 35,635	Yates, Steven D.	Reg. No. 42,242
Greaves, John N.	Reg. No. 40,362	Parker, Lanny	Reg. No. 44,281	Young, Charles K.	Reg. No. 39,435
Green, Sharmini N.	Reg. No. 41,410	Parker, J. K.	Reg. No. 33,024	-	
Greenberg, Robert A.	Reg. No. 44,133	Peacock, Gregg A.	Reg. No. 45,001		

I hereby authorize them to act and rely on instructions from and communicate directly with the

person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have

consented after full disclosure to be represented unless/until I instruct Schwegman, Lundberg, Woessner & Kluth, P.A. to the contrary.

Please direct all correspondence in this case to Schwegman, Lundberg, Woessner & Kluth, P.A. at the address indicated below:

P.O. Box 2938, Minneapolis, MN 55402

Telephone No. (612)373-6900

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of joint inventor	number 1: John S. Sadowsky		
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	Mesa, AZ 85202		
Signature:		Date:	
	John S. Sadowsky		
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Signature:	Minnie Ho	Date:
	Minnie Ho	
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